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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 10/722,395  | 11/28/2003  | Andrew Harker        | 4481-078                | 9997             |
| 7590  | 10/20/2005  |                      | EXAMINER                | NGUYEN, DUNG T   |
| Allan M. Lowe<br>c/o Lowe, Hauptman, Gilman & Berner<br>Suite 310<br>1700 Diagonal Road<br>Alexandria, VA 22314 |             |                      | ART UNIT                | PAPER NUMBER     |
|   |             |                      | 2828                    |                  |
|   |             |                      | DATE MAILED: 10/20/2005 |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

|                          |                  |  |
|--------------------------|------------------|--|
| Application No.          | 10/722,395       |  |
| Examiner                 | HARKER, ANDREW   |  |
| Dung (Michael) T. Nguyen | Art Unit<br>2828 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 21-40 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 21-23,25-34 and 36-40 is/are rejected.
- 7) Claim(s) 24 and 35 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \*    c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/28/03
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Objections***

Claims 35-37 and 40 are objected to because of the following informalities: these claims should be dependable on claim 32. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21, 25-32, and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosa et al. (4994059) in view of Kasper et al. (2004/0208207).

With respect to claims 21, 31-32, and 40, Kosa show in fig.1 a current driver unit 15 coupled to a control unit, the control unit being arranged to alter the magnitude of a current generated by the current driver unit (it is understood that the control unit usually controls (alters) the current in the power supply to ensure the laser device to receive a proper current amount for a proper performance) and arranged to drive the laser device 14; a tap 31 for tapping a predetermined percentage of electromagnetic radiation, the laser device is adapted to generate by stimulated emission in response to the current generated by the driver unit (it is understood that the control unit usually controls (alters) the current in the power supply to ensure the laser device to receive a proper current amount for a proper performance); a power measurer 41 for

measuring the power of the tapped predetermined percentage of electromagnetic radiation; an attenuator 43 for attenuating untapped electromagnetic radiation the laser device is adapted to generate by stimulated emission in response to the current generated by the driver unit.

Kosa lack the control unit being arranged to calculate the slope efficiency.

Kasper teach the control unit being arranged to calculate the slope efficiency (para.0037).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Kosa what is taught by Kasper in order to allow the operator to graphically check the performance of the laser device and to adjust the laser modulation amplitude to maintain a constant value (para.0037).

With respect to claims 25-26 and 36-37, Kosa disclose in fig.1 a power measurement unit 45 for measuring power of the attenuated untapped electromagnetic radiation; and the control unit is arranged for controlling attenuation of the untapped radiation in response to the measurement of the attenuated untapped electromagnetic radiation.

With respect to claims 27 and 38, Kasper disclose the laser device threshold current point (para.0038).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Kosa what is taught by Kasper in order to control the laser to avoid high levels of turn -on jitter (para.0038).

With respect to claims 28-30 and 39, Kasper disclose the bias current driver (para.0027).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Kosa what is taught by Kasper in order to supply bias current to the laser along with the alternate modulation current (para.0027).

Claims 22-23 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosa et al. (4994059) in view of Kasper et al. (2004/0208207) and further in view of IBM technical disclosure bulletin (Temperature and aging compensation of laser drive circuits, 02/1994, vol.37, p.279-280). Kosa and Kasper disclose all limitations of the claims except for the control unit alters the magnitude of the modulation current by 10%.

IBM technical disclosure bulletin teaches the control unit alters the magnitude of the modulation current by 10% (see whole document).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Kosa and Kasper what is taught by IBM technical disclosure bulletin in order to have the ideal operating point for the laser (see whole document).

#### *Allowable Subject Matter*

Claims 24 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung (Michael) T Nguyen whose telephone number is (571) 272-1949. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

Michael Dung Nguyen



MINSUN CH HARVEY  
PRIMARY EXAMINER